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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/207,745	12/08/1998	DANIEL S. SIMPKINS	32172-143271	7213

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EXAMINER

TRAN, PHUC H

ART UNIT PAPER NUMBER

2666

DATE MAILED: 02/06/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/207,745

Applicant(s)

SIMPKINS ET AL.

Examiner

PHUC H TRAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13,21-26 and 28-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13,21-26 and 28-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 49 is objected to because of the following informalities: should be included all the limitations of claim 41. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 13, 21-26, 28-33 and 35-53 are rejected under 35 U.S.C. 102(b) as being anticipated by Kosuge et al. (U.S. Patent No. 4575844).

- With respect to claims 13, 21, 31-35, 41, & 48-53, Kosuge teaches a switch for switching time division multiplexed data and packet data from input ports to output ports (e.g. Fig. 1 shows the basic system configuration of a digital switching system for circuit and packet through TDM), which comprises:

a plurality of input ports receives data (e.g. terminals in Fig. 1), wherein each data comprises either TDM data or packet data (e.g. the line 15 shows the TDM input data in Fig. 1 and Fig. 7);

a plurality of output ports transmits switched data (e.g. terminals in Fig. 1);

and a single shared memory (e.g. hierarchical storage in Fig. 1) couples the input ports to the output ports (to the multiplexer in Fig. 7), the shared memory sequentially receives all TDM

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data and packet data from the input ports (e.g. the shared memory sequences receiving in input line 15); the single shared memory stores both TDM and packet data; the single shared memory switching all sequentially receives TDM and packet data from respective input ports to respective output ports (e.g. the shared memory sequences outputting data on output line 16), wherein switching of packet data by the single shared memory has neither latency nor jitter effect on switching of TDM data by the single shared memory (see col. 1, lines 64-67 and Fig. 5) and wherein switching of TDM data is based on input time slots of the TDM data (Fig. 3b);

a time slot interchange controller couple to the single shared memory selecting address in the single shared memory to store TDM data (CKT switching call program in Fig. 6), the time slot interchange controller selecting an address of the single shared memory to store for a TDM data based on a time slot of a frame in which the switch received the TDM data (CKT switching call program control the CKT switching call buffer for transmit data, Fig. 7, Fig. 11);

and a packet switch controller coupled to the single shared memory selecting address in the single shared memory to store packet data (packet switching call program), the packet switch controller selecting an address of the single shared memory for a packet data based on routing data embedded in the packet data and based on the input which received the packet data (Fig. 7, Fig. 12, claim 2-3 in cols. 13-14). Kosuge explicitly fails to teach the time slot interchange controller, but it is inherently to understand the switching programs circuit/packet is for controlling of transmission in time slot.

- With respect to claims 22 & 36, Kosuge explicitly fails to teach each data is received by an input port as a time slot in a frame, but it inherently know the TDM comprising time slots, which assigns a fixed number of bits in each frame.

- With respect to claims 23, 37, & 42 Kosuge further teaches the single shared memory, which comprises a TDM data memory portion (e.g. CKT switching call buffer in Fig. 1) and a packet data memory portion (packet switching call buffer in Fig. 1).

- With respect to claims 24, 38, & 43, Kosuge discloses the single shared memory that treats the input ports as logical input ports (e.g. the input port in Fig. 1 as terminals).

- With respect to claims 25, 39 & 44, Kosuge teaches the single shared memory places sequentially received packet data in a queue for a respective output port (e.g. data is received at the switch memory to transmit to the output).

- With respect to claims 26, 40, & 45-46, Kosuge also teaches the input ports receive the data and transmitted by the output ports as data exchange units (e.g. the system of Kosuge utilizes the TDM with time frame as exchange unit to transmit data from input to output port).

- With respect to claim 28, Kosuge explicitly fails to teach the switching of a data from a respective input port to a respective output port is controlled by a stored switch configuration, but it is inherently to know the control section 14 in Fig. 1 for control the switching of data from input to output.

- With respect to claims 29 & 47, Kosuge also teaches an input data router sequentially routing data from the input ports to the single shared memory; and an output data router sequentially routing data from the shared memory to the output (e.g. Fig. 1 shows the sequentially routing data from the input to the shared memory and to the output).

- With respect to claim 30, Kosuge discloses wherein the data are received by input ports and transmitted by the output ports as data exchange units (e.g. the system of Kosuge as exchange unit to transmit data from input to output port). The data exchange units for packet

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data comprise routing information (e.g. the digital switching units 10 in Fig. 1 are for routing information from one terminal to another). The stored switch configuration uses the routing information of data exchange units for packet data to determine respective output port to switch the data exchange units (e.g. the control section is for controlling and routing the information through the digital switch unit). Kosuge explicitly fails to disclose the switching of a data exchange unit from a respective input port to a respective output port is controlled by a stored switch configuration, but it inherently understands the control section 14 in Fig. 1 for control the switching of data from input to output.

Response to Arguments

4. The following claims 13 & 34 were indicated allowable by examiner in previous office action; however, these claims are unpatentable in view of new arts. Therefore, these indicated claims are withdrawn.

5. Applicant's arguments filed 12/16/03 have been fully considered but they are not persuasive.

- It's noted in Applicant's remarks indicated that the memory in Kosuge is not a single shared memory. Examiner respectfully disagrees with Applicant. Kosuge teaches a single shared memory as Hierarchical storage, which has many portions such as small, large capacity memory and file memory; therefore, the hierarchical storage is considered as the single shared memory for storing data. In Fig. 7 of Applicant shows the single shared memory, which includes packet data memory and TDM data memory, therefore the Kosuge's memory is like the memory in Fig. 7.

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- Applicant's argument that Kosuge fails to teach a packet switch controller to select an address of a single shared memory for a packet data based on routing data embedded in the packet data and based on the input port which received the packet data. Examiner respectfully disagrees. Kosuge teaches the system mapping the virtual address space in the memory (Fig. 9, see bridge paragraph between col. 8-9)

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUC H TRAN whose telephone number is (703) 308-7471. The examiner can normally be reached on M-F (8-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RAO SEEMA can be reached on (703) 308-5463. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 872-9314.

Phuc Tran
Assistant Examiner
Art Unit 2664

P.t
January 29, 2004

DANG TON
PRIMARY EXAMINER